ATTORNEY DOCKET: SP00-230 SERIAL NO. 09/854,786

FILED: MAY 14, 2001 GROUP ART UNIT: 1639

EXAMINER: MY CHAU T. TRAN

PAGE 2

8. (Original) The array of claim 1, wherein the surface is coated.

- 9. (Original) The array of claim 8, wherein the coating is a material that enhances the affinity of the biological membrane microspot for the substrate.
- 10. (Original) The array of claim 9, wherein the material confers a contact angle ranging from about 15° to 80°.
- 15. (Original) The array of claim 11, wherein the silane is on a substrate comprising glass.
- 16. (Original) The array of claim 11, where in the silane presents terminal polar moieties.
- 17. (Original) The array of claim 16, wherein the terminal polar moieties are hydroxyl, carboxyl, phosphate, sulfonate, or amino groups.
- 19. (Original) The array of claim 9, wherein the material is  $\gamma$ -aminopropyl-silane.
- 31. (Original) The array of claim 1, wherein the surface is nano-porous.
- 51. (Previously amended) An array comprising a plurality of biological membrane microspots stably associated with a surface of a glass substrate, wherein the surface is coated with  $\gamma$ -aminopropyl-silane and the biological membrane microspots comprise a G-protein coupled receptor, and the substrate is adapted so that the microspots remain adsorbed when drawn through an air-water interface.

ATTORNEY DOCKET: SP00-230 SERIAL NO. 09/854,786

FILED: MAY 14, 2001

GROUP ART UNIT: 1639
EXAMINER: MY CHAU T. TRAN

PAGE 3

52. (Previously amended) An array comprising a plurality of biological membrane microspots

associated with the surface of a substrate, wherein the surface of the substrate is adapted such

that the array can be produced, used, or stored in an environment exposed to air under

ambient humidity.

53. (Previously added) The array of claim 52, wherein the biological membrane microspots

retain their ability to bind to a ligand when stored in air.

54. (Previously added) An array comprising a plurality of biological membrane microspots

associated with the surface of a substrate exposed to air under ambient humidity, the

membrane microspots having the ability to bind to a ligand.

55. (Previously added) The array of claim 54, wherein the biological membrane microspots

comprise a membrane bound protein.

56. (Previously added) The array of claim 55, wherein the membrane bound protein is a G-

protein coupled receptor.

60. (Previously added) The array of claim 54, wherein the substrate is configured as a chip, a

slide or a microplate.

61. (Previously added) The array of claim 54, wherein the surface is coated.

62. (Previously added) The array of claim 61, wherein the coating is a material that enhances

the affinity of the biological membrane microspot for the substrate.

63. (Previously added) The array of claim 62, wherein the material confers a contact angle

ranging from about 15° to 80°.

64. (Previously added) The array of claim 62, wherein the material is a silane, thiol, or a

polymer.

ATTORNEY DOCKET: SP00-230

SERIAL NO. 09/854,786 FILED: MAY 14, 2001

GROUP ART UNIT: 1639 EXAMINER: MY CHAU T. TRAN

PAGE 4

68. (Previously added) The array of claim 64, wherein the silane is on a substrate comprising

glass.

69. (Previously added) The array of claim 64, wherein the silane presents terminal polar

moieties.

70. (Previously added) The array of claim 69, wherein the terminal polar moieties are

hydroxyl, carboxyl, phosphate, sulfonate, or amino groups.

71. (Previously added) The array of claim 69, wherein the surface is positively charged and

contains amino groups.

72. (Previously added) The array of claim 62, wherein the material is  $\gamma$ -aminopropyl-silane.

79. (Previously added) The array of claim 75, wherein the silane compound is selected from

the group consisting of a silyl anhydride, silyl acid, silyl amine, silyl alcohol, vinyl silane or

silyl acrylate.

84. (Previously added) The array of claim 54, wherein the surface is nano-porous.

86. (Previously added) An array comprising a plurality of biological membrane microspots

stably associated with a surface of a glass substrate exposed to air under ambient humidity,

the membrane microspots having the ability to bind to a ligand, wherein the surface is coated

with  $\gamma$ -aminopropyl-silane and the biological membrane microspots comprise a G-protein

coupled receptor.